

Draft. March 26, 2015.

CE-QUAL-W2 Modeling Scenarios for City of Sandpoint Permit

Scenario 1: Existing Conditions

All model inputs will be unchanged from the year 2009 Pend Oreille Idaho model, **except** as follows:

City of Sandpoint WWTP

- Effluent flow: 3.0 mgd (constant)
 - Basis: Design flow as stated in previous fact sheet and permit application
- BOD₅: 30 mg/L (constant)
 - Basis: Existing permit limit
- TP: 2.41 mg/L (constant)
 - Basis: Concentration used in reasonable potential analysis for 2014 draft permit (average concentration March 2002 – March 2012).

Commented [JB1]: Hi Brian, since the limits in the 5mgd scenario are from actual data from this time period shouldn't the TP here be the same as the limits below?

City of Priest River WWTP

- NO₂ + NO₃: To be determined from monitoring data to be submitted by the City.
 - Current rough estimate is 14 mg/L, based on the difference between average reported total nitrogen and average reported ammonia. This is probably an overestimate because it would include both nitrates and organic nitrogen.
- NH₃: 1.98 mg/L
 - Average concentration measured between 1/2012 and 12/2014.

City of Dover WWTP

- NO₂ + NO₃: To be estimated based on Priest River's average NO₂ + NO₃.
- NH₃: 0.099 mg/L
 - Average concentration measured between 1/2012 and 12/2014.

Scenario 2: Draft Permit Conditions

All model inputs will be unchanged from the "Existing Conditions" scenario, **except** as follows:

City of Sandpoint WWTP

- Effluent flow: 5.0 mgd (constant)
 - Basis: Design flow as stated in most recent permit application
- BOD₅: 30 mg/L (constant)
 - Basis: Proposed permit limit (technology-based)
- TP:
 - July 1 – September 30: 1.46 mg/L
 - October 1 – June 30: 2.30 mg/L
 - Basis: Proposed permit limits